

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE February 2000		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604441F Space Based Infrared Systems (SBIRS) High EMD				PROJECT 653616	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
653616 SBIRS High Element EMD	508,473	420,476	569,188	389,879	196,841	128,871	100,856	349,072	3,492,030
Quantity of RDT&E Articles	0	0	0	1	1	1	1	0	4
<p>(U) <u>A. Mission Description</u></p> <p>(U) The Space-Based Infrared System's (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces or its allies. SBIRS will incorporate new technologies to enhance detection; improve reporting of intercontinental ballistic missiles, submarine launched ballistic missiles, and tactical ballistic missiles; and provide critical mid-course tracking and discrimination data for national and theater missile defense. This will provide increased performance in order to meet requirements in US Space Command's Capstone Requirements Document and Operations Requirements Document. SBIRS will consist of satellites in Geosynchronous Orbits (GEO), Highly Elliptical Orbits (HEO) and Low Earth Orbits (LEO) and an integrated centralized ground station serving all SBIRS space elements and Defense Support Program (DSP) satellites. This Program Element funds the GEO & HEO portions of SBIRS with their associated ground elements.</p> <p>(U) <u>FY 1999 (\$ in Thousands)</u></p> <p>(U) \$493,873 Continued Engineering and Manufacturing Development (EMD) contracts for Space and Ground segment development</p> <p>(U) \$3,470 Continued System Program Office Support</p> <p>(U) \$11,130 Technical analysis and independent verification and validation of contractor by FFRDC</p> <p>(U) \$508,473 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$383,115 Continue EMD contracts for Space and Ground segment development</p> <p>(U) \$5,631 Continue System Program Office Support</p> <p>(U) \$13,230 Technical analysis and independent verification and validation of contractor by FFRDC</p> <p>(U) \$18,500 Being reclassified by DD 1415 to Operations & Maintenance appropriation to field SBIRS High Increment 1 ground system</p> <p>(U) \$420,476 Total</p>									
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(U) **A. Mission Description Continued**

(U) FY 2001 (\$ in Thousands)

(U) \$534,870	Continue EMD contracts for Space and Ground segment development
(U) \$17,000	Integrated Training Suite (part of EMD contract)
(U) \$2,912	Continue System Program Office Support
(U) \$14,406	Technical analysis and independent verification and validation of contractor by FFRDC
(U) \$569,188	Total

(U) **B. Budget Activity Justification**

(U) This program is assigned to Budget Activity 5, Engineering and Manufacturing Development because it funds the EMD activities for the SBIRS High program.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2000 PBR)	539,361	328,653	475,257	3,398,992
(U) Appropriated Value	541,938	420,653		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-2,577	-177		
b. Small Business Innovative Research	-17,847			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-10,197			
e. Rescissions	-2,844			
f. Other				
(U) Adjustments to Budget Years Since FY 2000 PBR			93,931	
(U) Current Budget Submit/FY 2001 PBR	508,473	420,476	569,188	3,492,030

(U) **Significant Program Changes:**

Funding: FY01-FY05 funding adjustments were made as a result of the SBIRS High program restructure. \$92M was added to the appropriation in FY00 by Congress, however, \$18.5M is being reclassified to Operations and Maintenance (O&M) appropriation to field SBIRS High Increment 1 ground system. FY99 Below Threshold Reprogrammings to support other Air Force priorities.

(U)The program restructure was based on recommendations from the Joint Estimating Team commissioned by the Secretary of Defense to do an independent evaluation

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(U) **C. Program Change Summary (\$ in Thousands) Continued**

(U) Significant Program Changes Continued:
of the SBIRS High acquisition strategy and cost.

(U) SBIRS Increment 1, consolidation of existing DSP ground stations into a single CONUS ground station, is currently scheduled for 1QFY01. This schedule reflects a year delay to the current Acquisition Program Baseline. Additional \$21M of O&M funds required to continue legacy DSP systems is being requested in the FY2001 President's Budget.

(U) The FY01 request represents an increase above the FY00 appropriation required to support the restructured program and FY04 first launch date.

(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 1999</u> <u>Actual</u>	<u>FY 2000</u> <u>Estimate</u>	<u>FY 2001</u> <u>Estimate</u>	<u>FY 2002</u> <u>Estimate</u>	<u>FY 2003</u> <u>Estimate</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Missile Procurement (PE 0305915F, BA-45)	0	0	0	94,000	371,631	0	7,212	11,900	484,743
(U) Other Procurement (PE 0305915F, BA-45)	0	0	0	54,174	0	0	0	0	54,174
(U) Related RDT&E:									
(U) PE 603441F - SBIRS Dem/Val	144,723	0	0	0	0	0	0	0	1,154,120
(U) PE 305911F - DSP	13,971	7,361	11,462	6,418	6,697	0	0	0	1,923,990
(U) PE 604442F - SBIRS Low EMD	36,627	225,566	241,021	306,530	617,662	763,362	486,840	513,647	3,191,255

(U) **E. Acquisition Strategy**
SBIRS is a lead program for acquisition streamlining. The pre-EMD contracts were competed in full and open competition. Two contracts were awarded to Lockheed/Loral/Aerojet and Hughes/TRW in 1994 for the pre-EMD phase. A single contract was awarded to Lockheed Martin in 1996 for the EMD phase.

(U) **F. Schedule Profile**

	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
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February 2000

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604441F Space Based Infrared Systems (SBIRS)
High EMD

PROJECT

653616

(U) F. Schedule Profile Continued

	<u>FY 1999</u>					<u>FY 2000</u>					<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4		
(U) Ground Inc-2 Preliminary Design Review (Mobiles)			*											
(U) Payload Critical Design Review						X			X					
(U) Ground Inc-1- Consolidated DSP Stations										X				
(U) Ground Inc.-2 Critical Design Review											X			
(U) HEO Payload #1 Delivery (FY02)														
(U) HEO Payload #2 Delivery (FY03)														
(U) GEO Satellite #1 Delivery (FY04)														
(U) GEO Satellite #2 Delivery (FY05)														
*-Completed Event														
X-Planned Event														

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604441F Space Based Infrared Systems (SBIRS) High EMD				653616	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>	
(U) EMD Contract					493,873		401,615		551,870	
(U) System Program Office Support					3,470		5,631		2,912	
(U) Aerospace Corp					11,130		13,230		14,406	
(U) Total					508,473		420,476		569,188	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<u>Contractor or</u>		<u>Contract</u>								
<u>Government</u>		<u>Method/Type</u>		<u>Award or</u>		<u>Performing</u>		<u>Project</u>		
<u>Performing</u>		<u>or Funding</u>		<u>Obligation</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>
<u>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 1999</u>
<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Budget to</u>		<u>Total</u>		
<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>Complete</u>		<u>Program</u>		
<u>Product Development Organizations</u>										
LMMS & TRW (Pre-EMD)		C/CPFF		Jul 95		217,880		217,880		217,880
LMMS/Other (EMD)		C/CPAF		Nov 96				494,161		493,873
SBIRS Pre-EMD Contract								4,780		4,780
Adjustment										
Technology		Various		Sep 95		11,600		11,600		11,600
Phenomenology		Various		Sep 95		17,350		17,350		17,350
Sandia Natl Lab (Cobra		Various		Sep 95		10,000		10,000		10,000
Brass)										
<u>Support and Management Organizations</u>										
Aerospace Corp		MORD		Sep 95		N/A		N/A		39,600
Prgm Mgmt Supt		Various		Sep 95		N/A		N/A		25,600
<u>Test and Evaluation Organizations</u>										
Not Applicable										
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BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT	
05 - Engineering and Manufacturing Development				0604441F Space Based Infrared Systems (SBIRS) High EMD			653616	
(U) Government Furnished Property:								
	<u>Contract</u>							
	<u>Method/Type</u>	<u>Award or</u>						
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>
<u>Product Development Property</u>								
Not Applicable								
<u>Support and Management Property</u>								
<u>Test and Evaluation Property</u>								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
				<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>
<u>Subtotals</u>								<u>Total</u>
Subtotal Product Development				755,771	493,873	401,615	551,870	3,176,038
Subtotal Support and Management				65,200	14,600	18,861	17,318	315,992
Subtotal Test and Evaluation								
Total Project				820,971	508,473	420,476	569,188	3,492,030

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